REMARKS/ARGUMENTS

Withdrawn subject matter is cancelled without prejudice to filing a divisional application. The remaining Claims 29-51 represent elected subject matter.

Claim 29 was amended so as to include the limitation "exhibiting p-type conduction or n-type conduction". This is supported, for example, by the description of page 24, line 20 to page 25, line 21 of the specification.

More specifically, support for the change to Claim 29 can be found in page 25, lines 6-7, where it is described that either acceptors or donors can be used as dopants in the conductive polymer of the present Application. It is well known that when an acceptor is doped in the conductive polymer, the conductive polymer exhibits p-type conduction, and, on the contrary, when a donor is doped, the conductive polymer exhibits n-type conduction. Accordingly, the conductive polymer of the present Application can either be a p-type conductor or an n-type conductor. It is also described in the specification that anion dopants work as p-type dope (providing p-type conduction) in page 24, line 21. Anions are included in the examples of acceptors as shown in page 25, lines 15-16 of the specification.

Claims 29-51 are pending in the Application.

Claim 29 is rejected under 35 U.S.C. 102(e) as being anticipated by Kim et al. (Pub. No. US 2003/0099874).

Claims 29-30 and 45-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Munshi (US 6,718,628).

The remaining claims contain allowable subject matter but are dependent.

The Examiner relies on Kim et al. to show a method for manufacturing an electrical circuit comprising a step of forming at least a part of the electrical circuit by impregnating a conductive polymer in a receptive layer [0048-0052].

However, the method does not produce the same or analogous product to the present invention as now claimed in Claim 29.

The conductive polymer membrane made by Kim et al. is used as an electrolyte an ionic conductive polymer (for example, refer to the ABSTRACT). Since the conductive polymer membrane of Kim et al is used as an electrolyte, electronic conduction (n-type conduction) or positive hole conduction (p-type conduction), if present at all, must be suppressed very low in the conductive polymer of Kim et al. The reason for this is that, if an electrolyte of such as a battery or fuel cell has n-type or p-type conduction, the

voltage generated between the both surfaces of the electrolyte is easily canceled due to the leakage of electric charge by the electronic conduction or the hole conduction, and it can no longer be used as an electrolyte. Therefore, Kim cannot impregnate a conductive polymer exhibiting p- or n- type conductor.

In contrast the method of preparation of the conductive polymer of the present Application claims requires doping with an acceptor or a donor (page 24, line 16 to page 25, line 25), whereby the conductive polymer exhibits p-type conduction (by doping an acceptor) or n-type conduction (by doping a donor) as required in Claim 29. The conductive polymer which results is used to form an electrical circuit in which an electronic conduction or a hole conduction, but not ionic conduction, is needed.

Accordingly, the method of manufacturing the conductive polymer, of the present Application claims, is different from the method disclosed by Kim et al., and the two are not analogous: The conductive polymer made by the present Application exhibits p-type conduction or n-type conduction, while the conductive polymer of Kim et al. exhibits ionic conduction, in which p-type conduction or n-type conduction must be

suppressed very low in order to be used as an electrolyte of a fuel cell.

Accordingly, the method of manufacturing an electrical circuit as claimed in the present Application is not anticipated by Kim et al. nor is it an obvious variant.

The Examiner relies on Munshi to show a method for manufacturing an electrical circuit comprising a step of forming at least a part of the electrical circuit by impregnating a conductive polymer in a receptive layer (col. 6, lines 59-67).

Similar to Kim et al as discussed above, the conductive polymer impregnating Munshi is an ionically conductive polymeric composition for coating an implantable cardic stimulus electrode (col. 6, lines 16-18), namely an ionically conductive polymer. An ionically conductive polymer means a conductor in which ions are the major charge carrier and where p-type conduction or n-type conduction, if present at all, is suppressed very low.

On the other hand, the conductive polymer made by the present Application method is doped with an acceptor or a donor(page 24, line 16 to page 25, line 25), whereby the conductive polymer exhibits p-type conduction (by doping an acceptor) or n-type conduction (by doping a donor). The conductive

polymer made by the present claims is used to form an electrical circuit in which an electronic conduction or a hole conduction, but not ionic conduction, is needed.

Accordingly, the method of the present Application is different from the method disclosed by Munshi and not an obvious variant. This is because the conductive polymer made by the present Application claims is required to exhibit p-type conduction or n-type conduction, while the conductive polymer of Munshii exhibits ionic conduction, in which p-type conduction or n-type conduction must be suppressed very low in order to be used for coating an implantable cardic stimulus electrode. Therefore the step of impregnating of the present invention is not shown or suggested.

Therefore, as discussed above, the conductive polymer of Munshi is different from the conductive polymer of the present Application and the methods differ accordingly.

Accordingly, the method of manufacturing an electrical circuit of the present Application is not anticipated or rendered obvious by Munshi.

As discussed in above, the rejection of claim 29 should be withdrawn. Since additional rejected claims are dependent on claim 29 for the same reasons, they are not anticipated or

obvious, and the rejections of these claims should also be withdrawn. The remaining claims are indicated to have allowable subject matter.

In view of the above, the rejections are avoided. Allowance of the application is therefore respectfully requested.

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